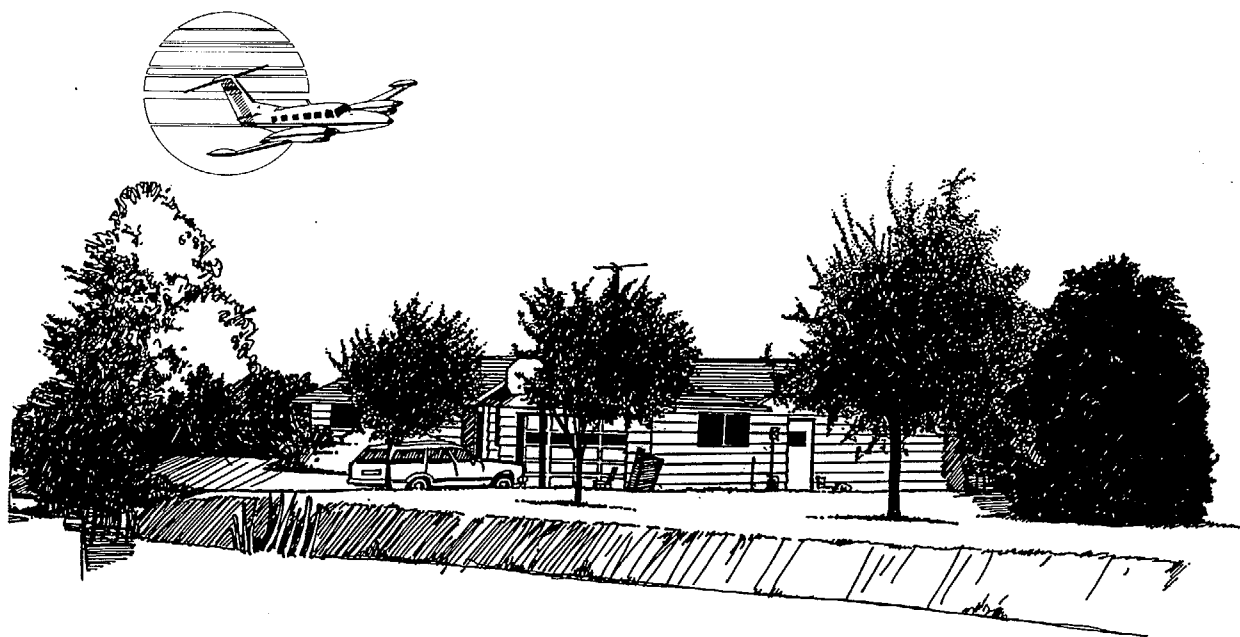


Chapter Six  
ENVIRONMENTAL EVALUATION

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## Chapter Six

# ENVIRONMENTAL EVALUATION

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### INTRODUCTION

Analysis of the potential environmental impacts of proposed airport development is an important component of the Airport Master Plan process. The primary purpose of this chapter is to evaluate the proposed development program for Show Low Municipal Airport to determine whether the recommended improvements individually or collectively would significantly affect the quality of the environment.

A major component of this evaluation is to coordinate with appropriate federal, state, and local agencies to identify potential environmental concerns. These concerns should be considered prior to the design and construction of the airport improvements. Issues of concern that were identified as part of this process, are presented in the following discussion.

The major improvements at Show Low Municipal Airport will require compliance

with the National Environmental Policy Act of 1969 (NEPA). Compliance with NEPA is generally satisfied by the satisfactory preparation and completion of a formal Environmental Assessment (EA) or Environmental Impact Statement (EIS). While this section of the master plan is not intended to fully satisfy NEPA requirements, it is intended to supply a preliminary review of environmental considerations that would be analyzed in more detail within the NEPA process.

This environmental evaluation includes a preliminary examination of each of the environmental resource categories outlined in *Airport Environmental Handbook*, FAA Order 5050.4A.

### PROPOSED DEVELOPMENT

As a result of the analysis of airport development alternatives, a number of significant airport improvements have been

recommended for implementation over the next 20 years. **Exhibit 6A** illustrates the proposed major airside development projects and **Exhibit 6B** illustrates the major landside development proposed during this period. The major development projects planned for Show Low Municipal Airport are as follows.

- ✱ Acquire approximately 220 acres of land.
- ✱ Extend, Widen and Strengthen Runway 6-24.
- ✱ Construct New Crosswind Runway and Taxiway.
- ✱ Construct Additional Aircraft Parking Apron.
- ✱ Construct Auto Parking.
- ✱ Install Airfield Lighting, Landing Aids.
- ✱ Navigational Aids.
- ✱ Expand Fuel Storage Facility.
- ✱ Construct Terminal Building.
- ✱ Construct T-hangars.
- ✱ Construct FBO Building/Hangar.

## **ENVIRONMENTAL CONSEQUENCES - SPECIFIC IMPACTS**

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The purpose of this section is to briefly examine potential impacts to environmental resources as they relate to the proposed airport development. The following subsections address each of the specific resource categories outlined by the **Airport Environmental Handbook**.

### **NOISE**

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Aircraft sound emissions are often the most noticeable environmental effect an airport will produce on the surrounding community. If the sound is sufficiently loud or frequent in occurrence, it may interfere with various activities or otherwise be considered objectionable.

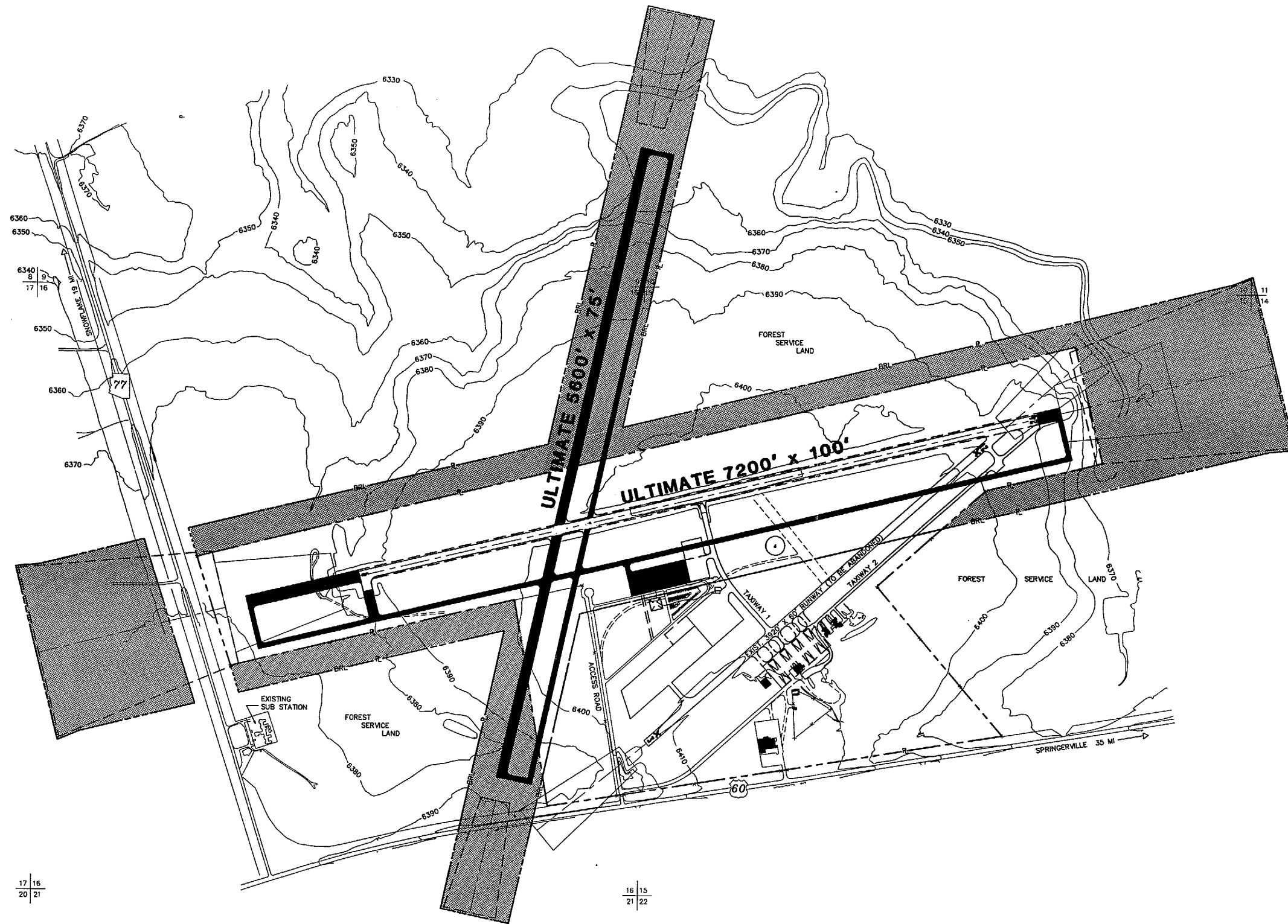
To determine noise related impacts that the proposed project could have on the environment surrounding Show Low Municipal Airport, noise exposure patterns must be analyzed. This includes examination of existing noise exposure and comparisons of this exposure with projected future conditions.

### **Noise Contour Development**

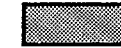
The basic methodology employed to define aircraft noise levels involves the extensive use of a mathematical model for aircraft noise prediction. The day-night average sound level (Ldn) is used in this study to assess aircraft noise. Ldn is the metric currently accepted by the Federal Aviation Administration (FAA), Environmental Protection Agency (EPA), and the Department of Housing and Urban Development (HUD) as an appropriate measure of cumulative noise exposure. Most federally funded airport noise studies use Ldn as the primary metric for evaluating noise.

Ldn is defined as the average A-weighted sound level as measured in decibels, during a 24-hour period; A 10 decibel (dB) penalty is applied to any noise events occurring at night (10:00 p.m. to 7:00 a.m.). Ldn is a theoretical summation metric which allows objective quantitative analysis, and can describe existing or projected noise exposure comprehensively over a large area.

Since noise decreases at a consistent rate in all directions from a source, points of equal Ldn noise levels can be indicated by means of a contour line. The various contour lines are then superimposed on a map of the airport and its surrounding area. It is important to recognize that a line drawn on a map does not imply that a particular noise condition exists on one side of the line and not on the other.



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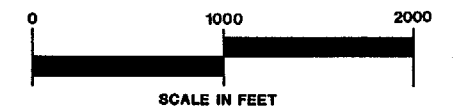
Land Acquisition



Proposed Airfield Improvements

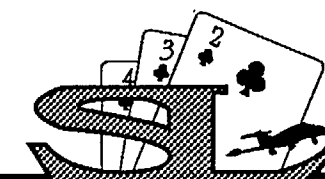
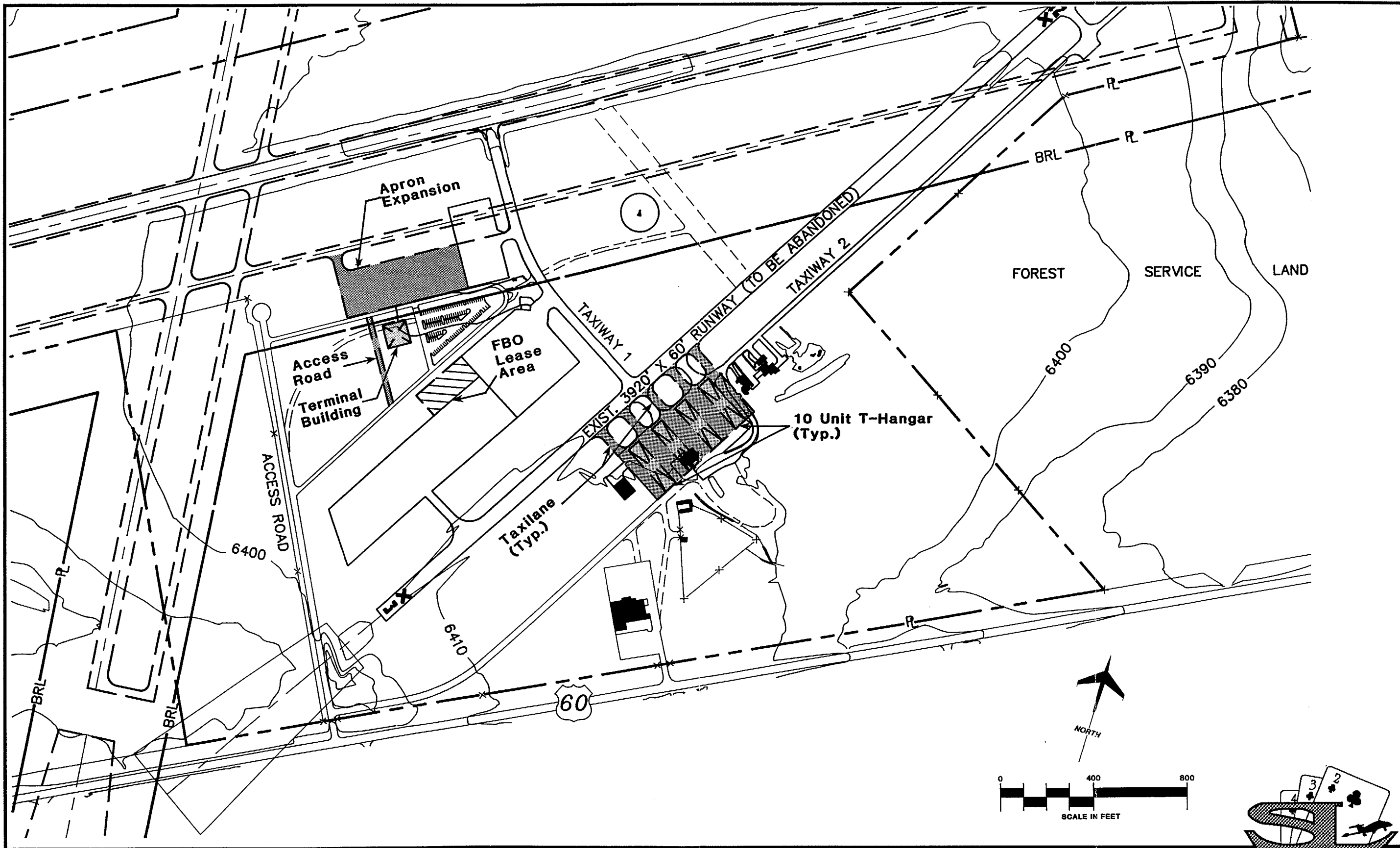


NORTH



Show Low  
MUNICIPAL AIRPORT

Exhibit 6A  
PROPOSED AIRPORT DEVELOPMENT



**Show Low**  
MUNICIPAL AIRPORT

Exhibit 6B  
PROPOSED TERMINAL DEVELOPMENT

Ldn calculations can not precisely define noise impacts, nevertheless, Ldn contours can be used to: 1) highlight existing or potential incompatibilities between the airport and any surrounding development; 2) assess relative noise exposure levels; 3) assist in the preparation of airport environs land use plans; and 4) provide guidance in the development of land use control methods, such as municipal zoning ordinances, subdivision regulations and building codes.

The use of a computerized noise prediction model is required in noise studies because the development of noise contours directly from field studies would require months of measurement at numerous noise measurement sites -- a very impractical, extremely expensive, and time consuming method of evaluation.

The noise contours for Show Low Municipal Airport were obtained from the Integrated Noise Model, Version 3.9. The Integrated Noise Model (INM) was developed by the

Transportation Systems Center of the U.S. Department of Transportation at Cambridge, Massachusetts, and has been specified by the FAA as one of two models acceptable for federally funded noise analyses.

The INM is a computer model which accounts for each aircraft along flight tracks during an average 24 hour period. These flight tracks are coupled with tables contained in the data base of the INM related to aircraft noise, slant range, distances and engine thrust for each make and model of aircraft selected.

Computer input files were prepared to represent 1989 conditions and for 2010 assuming the proposed development is fully implemented. The computer input files contained aircraft operational data, runway utilization, aircraft flight tracks, and aircraft fleet mix percentages. The aircraft operations and aircraft fleet mix data are summarized in Table 6A.

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**Table 6A**  
**Fleet Mix and Operational Data**  
**Show Low Municipal Airport**

	<u>1989</u>	<u>2010</u>
Aircraft Operations		
Light Single Piston	15,300	32,160
Twin Engine Piston	1,800	4,422
Turboprop	180	1,206
Business Jet	360	1,206
Helicopter	<u>360</u>	<u>1,206</u>
<b>TOTAL OPERATIONS</b>	<b>18,000</b>	<b>40,200</b>

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#### **Existing Noise Conditions**

The aircraft noise contours for Show Low Municipal Airport representing existing conditions are illustrated on **Exhibit 6C**. The contours shown include 55, 60, 65, 70, and 75

Ldn noise levels. In general, it is not until noise levels of 65 Ldn are experienced that land uses become very sensitive to noise. Using the FAA's Integrated Noise Model to compute the noise impact area at Show Low Municipal Airport, the 65 Ldn contour

encompasses approximately 0.04 square miles (25.6 ac.) and does not extend beyond the airport boundaries.

There are no residential structures located within the 65 Ldn noise contour in the area of the airport. The closest off-airport residential structure is located approximately 500 feet south of the airport and underlies the final approach path of aircraft landing from the west.

### **Future Noise Conditions**

As part of the noise impact analysis, future noise contours were projected for the proposed development so that impacts could be compared. There were no appreciable or significant differences in the noise impacts between the four airport development alternatives. Therefore, only the noise contours associated with the recommended alternative, Alternative B, are illustrated in Exhibit 6D.

It should be noted that the noise contours projected for the year 2010 timeframe have not been adjusted for any noise abatement measures. The future noise contours assume that existing traffic patterns and aircraft flight tracks will continue as they have in the past.

The land area contained within the 65 Ldn noise contour will increase to 0.17 square miles (108.8 ac.) by the year 2010. This noise contour will extend slightly beyond the existing airport boundary. It is important to note, however, that the additional property that will be acquired for runway clear zone protection includes all property within the 65 Ldn contour. Again, there are currently no residential units located within the 65 Ldn contour and with proper land use controls no noise sensitive land uses will be allowed to develop adjacent to the airport.

Despite the lack of noise sensitive land uses impacted by the 65 Ldn noise levels, it will be important to remain aware of the potential

for occasional annoyances to neighboring residents caused by single events and by low flying aircraft on final approach to the runways. These annoyances may increase as the airport is developed.

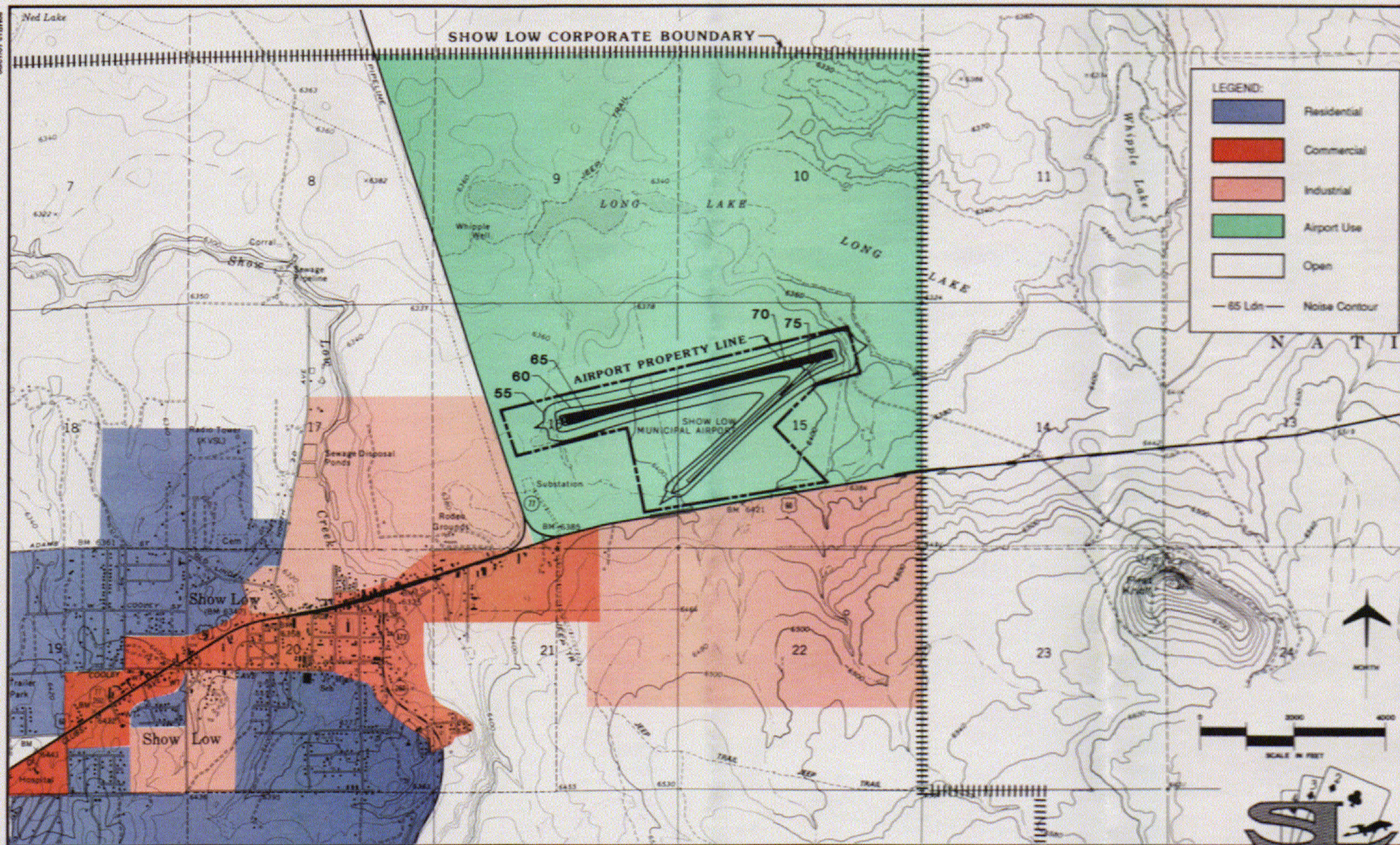
### **COMPATIBLE LAND USE**

Aircraft noise contours can be used as a guide to determine potential incompatible land uses in the vicinity of airports. To identify noise sensitive land uses potentially impacted by aircraft noise, the noise contours are overlaid on current and future land use maps for the airport and vicinity.

Federal Aviation Regulation Part 150 recommends guidelines for planning land use compatibility within various levels of aircraft noise exposure. These guidelines indicate that mobile home parks, outdoor music shells and amphitheaters are incompatible within areas effected by noise levels above 65 Ldn. Schools and residential uses other than mobile homes also are generally incompatible with noise above 65 Ldn. However, the federal guidelines note that, where local communities determine that these uses are permissible, sound attenuation measures should be used. Several other uses including hospitals, nursing homes, churches, auditoriums, livestock breeding, amusement parks, resorts, and camps are considered incompatible at levels above 75 Ldn.

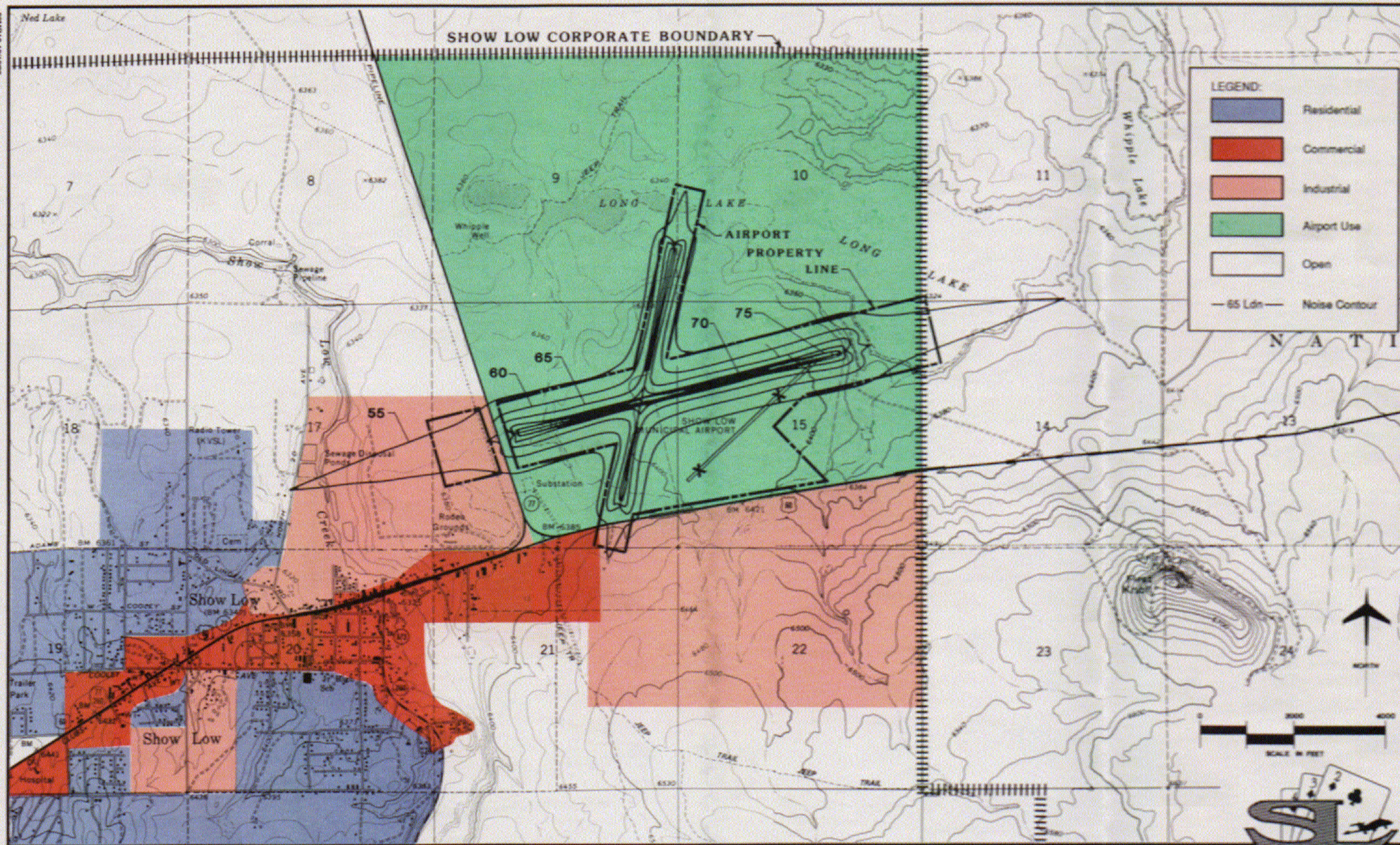
Experience has shown that new residential development should be prohibited in areas subject to noise exceeding Ldn 65. The current land use to the north and east of Show Low Municipal Airport is undeveloped land within the Apache-Sitagraves National Forests. The land to the south of the airport is largely vacant with sparse commercial and industrial development along U.S. Highway 60. On the west side of the airport and east of Highway 77 is also Forest Service land. The land west of Highway 77 is largely vacant with small pockets of industrial development along the highway.







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**Show Low**  
MUNICIPAL AIRPORT



Generally, all of the existing land use in the vicinity of the airport is compatible with airport operations and consistent with current zoning districts. One notable exception would be Show Low High School which is located approximately one mile west of the airport and just south of the final approach course to Runway 6. Although this area is not subjected to unacceptable noise levels, the high school could experience frequent overflights as activity continues to increase.

### SOCIAL IMPACTS

Social impacts known to result from airport improvement projects are often associated with relocation activities or other community disruption. Implementation of the proposed airport development will not require the relocation of residences or businesses.

Further, the proposed airport development is not anticipated to alter surface transportation patterns; divide or disrupt established communities; disrupt orderly, planned development; nor create an appreciable change in employment. Therefore, it can be assumed that there will be no adverse social impacts resulting from the proposed airport development.

### INDUCED SOCIOECONOMIC IMPACTS

Significant shifts in patterns of population movement or growth or public service demands are not anticipated as a result of the proposed improvements. It is expected, however, that the proposed development would potentially induce positive socioeconomic impacts for the community over a period of years.

The airport, with expanded facilities and services, will encourage or attract additional users. It is expected to encourage tourism, industry, and trade as well as contribute to the future growth and expansion of the

economic base of the community. Future socioeconomic impacts resulting from the proposed development will primarily be positive in nature.

### AIR QUALITY

The federal government has established a set of health-based ambient air quality standards (NAAQS) for the following six pollutants: carbon monoxide (CO), nitrogen dioxide (NO<sub>x</sub>), sulphur dioxide (SO<sub>x</sub>), lead, and PM<sub>10</sub> (particulate matter of 10 microns or smaller). Airport operations or development should not violate these air pollutant emission standards.

The Arizona Department of Environmental Quality (ADEQ) was contacted to determine the potential impacts the proposed development would have on air quality. According to ADEQ, the planned project is located in an area that is currently meeting all federal health standards for air pollution levels, and no adverse air quality impact is anticipated as a result of the proposed development.

However, the ADEQ does consider the area to have a medium probability of violating the NAAQS standards for particulates, and recommends that steps be taken during construction and implementation activities to minimize the amount of particulate matter generated as a result of the proposed development.

The generation of fugitive dust as a result of construction activities is anticipated due to the movement of heavy construction equipment and the exposure and disturbance of surface soils. This impact is expected to be both temporary and localized. The following preventive and mitigative measures were recommended by ADEQ and should be utilized during construction. Applicable State regulations are contained in Arizona Administrative Code Sections R18-2-404, R18-2-405, R18-2-406, and R18-2-407.



### Site Preparation

- ♣ Minimize Land Disturbance.
- ♣ Use Watering Trucks to Minimize Dust.
- ♣ Cover Trucks when Hauling Dirt.
- ♣ Stabilize the Surface of Dirt Piles if not Removed Immediately.
- ♣ Use Windbreaks to Prevent Any Accidental Dust Pollution.
- ♣ Limit Vehicular Paths and Stabilize Temporary Roads.
- ♣ Grade to Prevent Soil from Washing onto Paved Roadways.

### Construction

- ♣ Cover Trucks when Transporting Materials.
- ♣ Use Dust Suppressants on Paths not Paved.
- ♣ Minimize Unnecessary Vehicular and Machinery Activities.
- ♣ Minimize Dirt Track-out by Washing or Cleaning Trucks before Leaving the Construction Site.

### Post Construction

- ♣ Revegetate any Disturbed Land not Used.
- ♣ Remove Unused Material.
- ♣ Remove Dirt Piles.
- ♣ Revegetate all Vehicular Paths Created During Construction to Avoid Future Off-road Vehicular Activities.

According to **Air Quality Procedures for Civilian Airports and Air Force Bases**, Report No. FAA-EE-82-21, if the proposed action is in a state which does not have applicable indirect source review (ISR) requirements, then projected airport activity levels are examined. The State of Arizona does not provide for indirect source review.

According to the **Airport Environmental Handbook**, air quality analysis is not required for the proposed improvements since the forecast aircraft activity at Show Low Municipal Airport would be less than 180,000 annual operations throughout the planning period. This level of activity is generally regarded as contributing no significant amounts of air pollutants from aircraft operations and servicing equipment.

### WATER QUALITY

Water quality concerns associated with airport expansion most often relate to the following.

- ♣ Domestic Sewage Disposal.
- ♣ Increased Surface Runoff and Soil Erosion.
- ♣ Storage and Handling of Fuel, Petroleum, Solvents, etc.

The City of Show Low has recently installed a eight inch sewer line at the airport. This sewer line will collect and transport all sewage generated at the airport to the city waste water treatment plant. This sewer system is capable of handling all current and future sewer needs generated by the proposed airport development and any industrial development on the airport.

Construction of the proposed improvements will result in a slight increase in impermeable surfaces and a resultant increase in surface runoff from both landside and airside facilities. The proposed development might have short-term effects on water quality, particularly suspended sediments, during and shortly after precipitation events during the construction phase.

Recommendations established in **Standards for Specifying Construction of Airports**, FAA Advisory Circular 150/5370-10A, Item P-156,

Temporary Air and Water Pollution, Soil Erosion and Siltation Control should be incorporated into project design specifications to further mitigate potential impacts. These standards include temporary measures to control water pollution, soil erosion, and siltation through the use of berms, dikes, dams, sediment basins, slope drains, and other control devices. The runoff and seepage limits prescribed in Title 18, Chapter 11, Article 2 of the Arizona Administrative Code will be adhered to during construction activities.

Measures to control erosion will be included in the design specifications and may include flattening of slopes, sediment traps, temporary holding ponds, and the application of seed and mulch or sod as soon after grading as possible. The runoff and seepage limits prescribed in Title 18, Chapter 11, Article 2 of the Arizona Administrative Code Should be adhered to during construction activities.

Spills, leaks and other releases to the environment of hazardous substances are often a concern at airports due to fuel storage, fueling activities and maintenance of aircraft. Stormwater flowing over impermeable surfaces may pick up petroleum product residues, and, if not controlled, transport them off site. Perhaps the most crucial concern would be spills or leaks of substances that could filter through the soil and contaminate groundwater resources.

Federal and State laws and regulations have been established to safeguard these facilities and activities. These regulations include standards for underground tank construction materials and the installation of leak or spill detection devices.

As growth in aviation activity continues, fuel storage facility expansion would be necessary. Based on the Facility Requirements analysis conducted for this study, future fuel storage needs by the end of the 20-year planning period would likely total3 roughly 30,000

gallons. New underground storage tanks will be registered with the Arizona Department of Environmental Quality in accordance with Arizona Revised Statutes Title 49, Section 1002.

#### DEPARTMENT OF TRANSPORTATION ACT, SECTION 4(F) LANDS

Paragraph 47e, FAA Order 5050.4A provides the following.

(7)(a) "Section 4(f) provides that the Secretary shall not approve any program or project which requires the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state or local significance, or any land from an historic site of national, state or local significance as determined by the officials having jurisdiction thereof unless there is no feasible and prudent alternative to the use of such land and such program includes all possible planning to minimize harm."

(7)(b) ..."When there is no physical taking but there is the possibility of use of or adverse impacts to section 4(f) land, the FAA must determine if the activity associated with the proposal conflicts with or is compatible with the normal activity associated with this land. The proposed action is compatible if it would not affect the normal activity or aesthetic value of a public park, recreation area, refuge, or historic site. When so construed, the action would not constitute use and would not, therefore, invoke Section 4(f) of the DOT Act."

There are no Section 4(f) facilities located at or adjacent to Show Low Municipal Airport. Therefore, no impacts to Section 4(f) lands are anticipated as a result of the proposed development.



## **HISTORIC, ARCHITECTURAL, ARCHAEOLOGICAL AND CULTURAL RESOURCES**

The Arizona State Historic Preservation Office was contacted regarding the potential presence of cultural resources within the area of the proposed development. Their written response states that "the likelihood appears fairly good that cultural resources may be located within the project area". A review of their records indicates that at least two, and possibly four, known archaeological sites are situated within the proposed land acquisition area. This area should be surveyed by a qualified archaeologist during a formal Environmental Assessment.

Should archaeological resources be encountered during any preconstruction or construction activities, work should cease in the area of the discovery and the SHPO be notified immediately, pursuant to 36 CFR 800.11. A statement to this effect should be included in any contractual agreement for airport construction.

## **BIOTIC COMMUNITIES**

As part of this environmental evaluation, the U.S. Department of the Interior, Fish and Wildlife Service (USFWS), the Arizona Game & Fish Department were contacted to request information regarding potential impacts to wildlife, plants and native habitat as a result of the proposed development. Both agencies were asked whether there were any known threatened or endangered species or other species of special significance known to exist in the area of the airport.

The proposed development will require the acquisition of land and considerable earth fill at each end of Runway 6-24. The east end of the runway will be extended 200 feet and might require some fill material be placed within the Long Lake Basin.

The Arizona Game & Fish Department indicates that this basin is usually dry, however, it occasionally fills and provides wetland habitat for migrating waterfowl and other marshland birds. Also the land north of the existing airport provides forage for pronghorn antelope.

In their letter stating their concerns, the Arizona Game & Fish Department questioned the need to acquire the Forest Service land as part of the proposed development. The land is necessary to conform to design standards and provide an adequate level of safety and compatibility.

The loss of habitat for the pronghorn antelope will be small and confined to the area adjacent the existing airport. The full effect of the proposed development will have to be explored further in a formal Environmental Assessment.

## **THREATENED AND ENDANGERED SPECIES OF FLORA AND FAUNA**

The Endangered Species Act requires the FAA to ensure that the proposed development is not likely to jeopardize the continued existence of any threatened or endangered species, or result in the destruction or adverse modification of habitat. Correspondence with the Arizona Game & Fish Department indicates that according to their records there are no known threatened or endangered species of flora or fauna in the area.

The Arizona Game & Fish Department did indicate that the area is used by pronghorn antelope and that measures should be taken to prevent these animals from posing a collision hazard to aircraft.

## **WETLANDS**

Paragraph 47 e(11)(c) and (d), FAA Order 5050.4A cites:

- (c) A proposal is considered to affect wetlands if it would involve development in a wetlands area; involve dredging, filling, draining, channelizing, diking, impounding, or otherwise directly impact a wetlands area; involve disturbing the water table of an area in which a wetland lies; or indirectly affect a wetland by impacting regions upstream or downstream or inducing secondary development. If there is uncertainty about whether an area is a wetland, the U.S. Fish and Wildlife Service or the local or state natural resource agency shall be contacted for further information.
- (d) If the proposal does not affect a wetlands area, a sentence to this effect in the environmental assessment is sufficient. No further analysis is necessary.

Correspondence with the U.S. Fish and Wildlife Service did not indicate that there are any designated wetlands in the area that would be adversely affected by the proposed development.

The U.S. Army Corps of Engineers failed to indicate whether or not a section 404 permit under the Clean Water Act would be required. It is expected that all of the proposed airport development would qualify under a nationwide permit. However, if it should be determined that a 404 permit will be required, all necessary measures to comply with regulations and protect water quality will be taken.

#### FLOODPLAIN

Federal Emergency Management Act (FEMA) maps were examined to identify designated 100 year floodplain areas within the proposed project or immediate vicinity. The maps provided by the Arizona Department of Water Resources identified floodplain areas east of the airport associated with the washes that feed Long Lake. This

wash generally flows from the south and southwest to the north and crosses U.S. Highway 60.

According to the FEMA maps this wash is designated as a 100-year floodplain. No other areas that would be affected by the proposed development are in the vicinity of the airport. While construction of the 200 foot runway extension to the east would not occur within the areas designated as the 100-year floodplain, the earth fill may encroach in this area. The amount of earth fill and the slope necessary for this fill to meet existing grade and meet FAA standards could impact the natural flow of this floodplain.

According to U.S. Army Corps of Engineers, any work to be completed within waters of the United States might require a permit under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act. Based on the information available at this time and the proposed development, it is not anticipated that Section 404 or Section 10 permits will be required. Due to the proximity of the project to floodplain areas, it will be necessary, however, to provide documentation to the Corps of Engineers that clearly describes the area and extent of the proposed work so that they can make the official determination.

#### COASTAL ZONE MANAGEMENT PROGRAM

Arizona has no coastal resources within or adjacent to its boundaries. Consequently, Arizona has no Coastal Zone Management Program. All coastal resources are well outside the sphere of influence of Show Low Municipal Airport and will not be affected by the proposed development.

#### COASTAL BARRIERS

The Coastal Barrier Resources Act of 1982 prohibits federal financial assistance for



development within the Coastal Barrier Resources System. The Coastal Barrier Resources System consists of undeveloped coastal barriers along the Atlantic and Gulf Coasts. These resources are well outside the sphere of influence of Show Low and its vicinity, and will not be affected by the proposed development.

### **WILD AND SCENIC RIVERS**

According to the River Mileage Classifications for Components of the National Wild and Scenic Rivers System, there are no rivers within Navajo County that are protected by the Wild and Scenic Rivers Act (PL-90-542) as amended. No impacts to this resource category are anticipated as a result of the proposed development.

### **FARMLAND**

Construction of the proposed new airport would occur in an area currently used for the grazing of livestock. No cultivated farmland exists within the site or adjacent areas. Since prime and unique farmland in the State of Arizona includes, by definition, only land that is currently being irrigated, no land of this designation would be impacted by the proposed action.

### **ENERGY SUPPLY AND NATURAL RESOURCES**

There are no existing energy production or supply facilities that would be affected by the proposed project and no impacts are anticipated on the development of energy resources.

A slight increase in energy demand will likely occur as a result of the proposed project. Additional electricity will be needed for taxiway and parking area lighting, a terminal, FBO building, and parking lot lighting. In addition to this electric demand, expenditures

of manpower, fuel, electricity, chemicals, water and other forms of energy will be necessary to construct the improvements and to provide for maintenance and operation of the facilities. This increase in electrical demand is not expected to be significant.

The use of nonrenewable natural resources is considered to be an irreversible impact, since these resources are only renewable over long periods of time. Commitments of small amounts of these resources must be made in order to allow for continued maintenance and operation of existing facilities construct the improvements proposed in the Master Plan.

### **LIGHT EMISSIONS**

The proposed lighting improvements include Medium Intensity Runway Lighting (MIRL), Precision Approach Path Indicators (PAPI-2) and Medium Intensity Taxiway Lighting (MITL). It is also anticipated that flood lighting will eventually be installed in the aircraft parking apron and automobile parking areas.

Due to the limited nature of light generating equipment proposed and the distance from existing residential structures, the proposed improvements are not expected to result in a significant increase in light emission impacts. If problems do materialize, they can be handled on a case-by-case basis by shielding or adjusting the angle of the lighting.

To reduce potential impacts associated with project lighting, the use of low pressure sodium lights is recommended for all public automobile parking areas and driveways.

### **SOLID WASTE**

An increase in the generation of solid waste as a result of the proposed action will be slight. The City of Show Low will be responsible for the collection and proper disposal. Periodic collection will be provided

by the city and disposal will be done at a county operated landfill. No significant solid waste impacts are expected as a result of the proposed development.

### CONSTRUCTION IMPACTS

Construction activities have the potential to create temporary environmental impacts at the airport. These impacts will primarily relate to noise resulting from heavy construction equipment, fugitive dust emissions resulting from construction activities, and potential impacts on water quality from runoff and soil erosion from exposed surfaces.

A temporary increase in particulate emissions and fugitive dust may result from construction activities. The use of temporary dirt access roads would increase the generation of particulate. Dust control measures, such as the watering of exposed soil areas, will be implemented to minimize this localized impact.

Any necessary clearing and grubbing of construction areas will be conducted in sections or sequenced to minimize the amount of exposed soil at any one time. All vehicular traffic will be restricted to the construction site and established roadways.

The provisions contained in Standards for Specifying Construction of Airports, FAA Advisory Circular 150/5370/10A, Temporary Air and Water Pollution, Soil Erosion, and Siltation Control will be incorporated into all project specifications. During construction temporary dikes, basins and ditches will be utilized with each phase of construction to control soil erosion and sedimentation, and prevent degradation of off-airport surface water quality. After construction is complete,

slopes and denuded areas will be reseeded to aid in the vegetation process.

The adverse environmental effects of construction are generally short term and localized. With complete implementation of the recommended mitigation measures, impacts related to construction of the proposed improvements are not expected to be significant or permanent.

### CONCLUSION

Based on the review of potential environmental impacts and considerations anticipated as a result of the development and operation of Show Low Municipal Airport, the major issues identified are summarized below.

Mitigation measures may be recommended to limit the potential impacts related to a number of these resources. Please note that as more specific information is gathered through a formal Environmental Assessment process, additional issues may arise.

- ♣ Air Quality - Limiting of fugitive dust during construction, and stabilization techniques for non-paved access roads to the airport/project site.
- ♣ Water Quality - Erosion control, and storage and handling of fuel and other petroleum products.
- ♣ Floodplain/Stormwater Control - Protection of downstream areas from increases in stormwater runoff or decreases in water quality. Mitigation of adverse floodplain impacts.
- ♣ Cultural Resources - Cultural resource survey required.